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EXAMINER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/668,116  
Filing Date: September 22, 2003  
Appellant(s): KIRSCHNER, KRAIG A.

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John D. McConaghy  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed March 28, 2008 appealing from the Office action mailed May 03, 2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

4,998,691	Brown	3-1991
4,733,471	Rahe	3-1988

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 8, 10-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 4,998,691 to Brown in view of. US Patent No. 4,733,471 to Rahe.

**(10) Response to Arguments on the Appeal Brief**

A) Whether Appellant's claims 8, 10-12 and 14 are unpatentable over US Patent No. 4,998,691 to Brown in view of. US Patent No. 4,733,471 to Rahe?

As stated in the final action with respect to claims 8 and 10, Brown shows a pipe clamp system as depicted on Fig. 1, comprising a pipe of specified outside diameter; a clamp including two bars (21), each bar including a substantially hemicylindrical section (21a), a first straight section (21) on one end of the

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hemicylindrical section and a second straight section on the other end of the hemicylindrical section, each straight section having a through hole (7) closely spaced equidistant from the hemicylindrical section; and fasteners (12 with nuts 22) extendable through the through holes to retain the two bars together with the first straight sections juxtaposed with the second straight sections, respectively.

What Brown does not expressly disclose is the hemicylindrical sections having radiused inside edges to prevent gouging.

Rahe teaches the inside edge of the hemicylindrical sections being radiused (114, 134) (chamfered end surfaces) (Fig. 6A, 7A for example) to allow the pipe sliding in and out easily without gouging. Rahe also states that such narrow chamfered surfaces are conventionally provided in devices of such generally type. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a radiused inside edges or chamfered edges on the clamp of Brown as taught in Rahe in order to allow the pipe sliding in and out easily as well as to prevent gouging.

Brown also does not specifically address the inside diameter of the hemicylindrical sections of the two bars being smaller than the specified outside diameter (of CPVC pipe) by not to exceed five percent with the first straight section juxtaposed with the second straight sections, respectively.

Rahe teaches the clamp members designed with respect to the outer diameter of the tube 46 being the ranges of less than or equal to about 3.5 percent of the outer diameter and greater than or equal to about 0.5 percent of such diameter to provide the necessary support which is required in the securing, such as the amount of friction that

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can be tolerated in the sliding in and out between the clamp members and outer diameter of the tube as well as to fit about a part of the periphery of the tube. (col. 6, lines 24-30).

It would have been obvious to one having an ordinary skill in the art at the time the invention to provide the teaching of the inside diameter of the hemicylindrical sections (clamp members) of the two bars being smaller than the specified outside diameter (of the pipe and/or tube) by not to exceed five percent with the first straight section juxtaposed with the second straight sections, respectively on Brown as taught by Rahe in order to allow the clamp members to be press-fitted and compressed with an pressure holding enough without braking the pipe/tube while the bolt is tightened down until the straight bars are juxtaposed and the clamp can be achieved to hold the pipe tightly secured.

With respect to "CPVC" pipe, CPVC is a well-known per se and commercially available material used in lightweight and durable. Accordingly, it would have been obvious to one ordinary skill in the art as a matter of engineering design choice to utilize CPVC pipe as the particular pipe because it is well-within the level of skill in the art to utilize the known features of the art for the purpose for which they are known according to its of intended use thus the selection of CPVC pipe does not produce any unexpected results and it would have been no more than an obvious matter of engineering design choice producing no new and unexpected.

With regard to claim 14, claim 14-recites the feature which so called "standard" which is assumably well known by ordinary skill in the art and it's obvious that any

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number of different standard tubes/pipes can be used since Brown in view of Rahe does not prevent from using it. The standard outside diameter as specified diameter is deemed obvious over Brown in view of Rahe since the pipe of Brown in view of Rahe also appears to be the standard pipe and the standard pipe as claimed in claim 14 can be used in the device of Brown in view of Rahe.

With regard to claims 11-12, the provision of calling for the first straight section being a long straight section and the second straight section being a short straight section and the long straight sections each having an attachment hole closely spaced from the distal end thereof would have also been no more than an obvious matter of design choice since there are no additional teaching or criticalities from Applicant regarding of a long arm and short arm. This would have led a person of ordinary skill in the art to have had a reasonable expectation that any length (longer or shorter) and any attachment hole can be used at any desired location along the arms. In addition, the length of the long arm and short arm as claimed would have been a matter of choice in design since the claimed structure and the function they perform are the same as the prior art (functionally equivalent). In re Chu, Supra. See legal precedent regarding changes in sizes/proportion in MPEP 2144.04.

In response to Applicant's argument that there is no disclosure whatsoever regarding the shape or fit of the two curved clamp portion, this argument is traversed by the examiner. Brown clearly teaches the shape of two curved clamp portion as recited in claim 8 as stated in the above or in the final action.

In response to Applicant's arguments regarding that there is no teaching the clamp is other than of traditional clamp elements, and nothing in Brown to suggest a pipe clamp that could not be employed to work in the traditional way (?). This argument is also trasversed by examiner. The "traditional clamp elements" on which Applicant relies is not stated in the claims. On this regard, it should be noted that many arguments presented by Applicant appear to be not stated in the claims. It is the claims that define the claimed invention and it is claims, not specifications that are anticipated or unpatentable. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ 641 (CCPA 1974).

In response to Applicant's remarks concerning the term "substantially" as used by the examiner in the final office action. The term "substantially" used by examiner is intended as being generally hemicylindrical or approximately hemicylindrical. Nonetheless, the reference of Brown clearly reads on the shape of the clamp 21 which includes two bars 21a each bar having a hemicylindrical section. It should be noted that Applicant's claims does not require an "exact "hemicylindrical shape.

In response to Applicant's argument that there is no teaching, suggestion or motivation for the combination of Brown and Rahe, Brown and Rahe fail to provide any mechanism that has the ability to create compression fully around the pipe and the combination of Brown and Rahe cannot provide a basis for obviousness, this argument is transversed by examiner.

First, Brown teaches a piping support system more directly to a pipe clamping device which has a pair of clamp halves secured by nuts as depicted on Fig. 2. The



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clamp including two bars each bar having a hemicylindrical section 20a, 21a. Rahe also teaches the invention related to a pipe clamping device which has a pair of clamp halves 88, 86 secured by nuts generally designated as 42, 44 as depicted on Fig. 8. The clamp also includes two bars each bar having a hemicylindrical section 86, 88. Applicant's invention also relates to pipe clamp, where the pipe uses is CPVC pipe.

A problem faced by Applicant was that the CPVC pipe is subject to fracture under significant compression and to gouging. Rahe is reasonably pertinent to this problem.

Second, as stated in final action, Rahe teaches the hemicylindrical clamps 88, 86 (Fig. 8 in general) designed with respect to the outer diameter of the tube 46 being the ranges of less than or equal to about 3.5 percent of the outer diameter and greater than or equal to about 0.5 percent of such diameter in order to provide the necessary support which is required in the securing, the amount of friction that can be tolerated in the sliding in and out between the clamp members and outer diameter of the tube as well as to fit about a part of the periphery of the tube. (col. 6, lines 24-30). Rahe also teaches the inside edge of the hemicylindrical sections being radiused (chamfered end surfaces 114, 134 (Fig. 6A, 7A). Rahe also states that such narrowed chamfered surfaces are conventionally provided in devices of such general type. Thus Rahe clearly teaches what Brown does not appear to address.

Rahe not only shows and suggests to prevent gouging based on the hemicylindrical section being radiused (chamfered end faces) but also suggests compression around the pipe with the specified diameters of the clamp members, thus

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the combination of the teachings of Brown and Rahe clearly meets and fairly suggests the subject matter as specified in claim 8. The examiner has provided the reasons such as "It would have been obvious to one having an ordinary skill in the art at the time the invention to provide the teaching of the inside diameter of the hemicylindrical sections (clamp members) of the two bars of being smaller than the specified outside diameter (of the pipe and/or tube) by not to exceed five percent with the first straight section juxtaposed with the second straight sections, respectively on the Brown clamp members as taught by Rahe in order to allow the clamp members to be compressed/gripped the pipe with a pressure holding enough without braking the pipe/tube while the bolt is tightened down until the straight bars are juxtaposed and the clamp can be achieved to hold the pipe tightly secured" However, Appellant has not provided any persuasive reasons why the examiner's finding is incorrect.

It appears that applicant is attempting to impart the reference of Rahe while the rejection is based on the combination. One cannot show non-obvious by attacking references individually where the rejections are based on the combination of references. The combination of Brown and Rahe would have fairly suggested at least the subject matter of claims 8 as stated in the final action. Note that the present claims using open-ended language of "comprising", therefore it is proper to use the references as stated under 103 rejection. The examiner has considered all of the disclosure of what it would be fairly taught by the prior art taken as a whole, which one of ordinary skill in the art would have been expected to draw therefrom in light of existing prior knowledge it would have been no more than an obvious matter to combine the teaching of the prior art to

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the invention, which render the subject matter obvious within the meaning of 35 U.S.C.  
103.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the  
Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Tan Le/  
Examiner, Art Unit 3632

/David Dunn/  
Supervisory Patent Examiner, Art Unit 3636

Conferees:

Meredith Petravick /mcp/

David Dunn /DD/